

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) ~~Circuit~~ A circuit arrangement for a capacitive proximity switch for the determination of an operating state and having
a capacitive sensor element, whose capacitance ~~(C3)~~ changes as a function of the said operating state,
a central capacitor ~~(C2)~~,
a first controllable connecting means ~~(D2)~~ which, as a function of a triggering signal, supplies a charging voltage ~~(U3)~~ to the said capacitive sensor element ~~(C3)~~,
a second controllable connecting means ~~(T1)~~, which, as a function of the said triggering signal, connects the said capacitive sensor element ~~(C3)~~ to the said central capacitor ~~(C2)~~ for the a transfer of the charge from the said capacitive sensor element ~~(C3)~~ to the said central capacitor ~~(C2)~~,
~~characterized in that the~~ wherein said charging voltage ~~(U3)~~ is an a.e. AC voltage and ~~the a.e. said AC voltage can be~~ is supplied to the said connecting means ~~(D2, T1)~~ in such a way that, in alternating manner, the said first connecting means ~~(D2)~~ or the said second connecting means ~~(T1)~~ is conductive.
2. (Currently amended) ~~Circuit~~ The circuit arrangement according to claim 1, characterized in that the said charging voltage ~~(U3)~~ is generated with the aid of a d.e. DC voltage source ~~(U1)~~ and a square-wave voltage source ~~(U2)~~ with a common reference potential, a clamping diode ~~(D1)~~ being looped in the conducting direction between a charging voltage node ~~(N1)~~ and the d.e. said DC voltage source ~~(U1)~~ and a capacitor ~~(C1)~~ and a resistor ~~(R1)~~ are looped in in series between the said charging voltage node ~~(N1)~~ and the said square-wave voltage source ~~(U2)~~.

3. (Currently amended) ~~Circuit~~ The circuit arrangement according to claim 1 ~~or 2~~, characterized in that ~~the said~~ first connecting means is a diode (~~D2~~) and/or the second connecting means is a bipolar transistor, particularly a pnp transistor (~~T1~~).

4. (Currently amended) ~~Circuit~~ The circuit arrangement according to claim 3, characterized in that ~~the base of the transistor (T1) and/or the an~~ anode of the said diode (~~D2~~) is connected to the said charging voltage node (~~N1~~), ~~the and that a cathode of the said diode (D1) and/or the emitter of the transistor (T1) is connected to a filter resistor (R2), which is coupled to the said capacitive sensor element (C3), and the collector of the transistor (T1) is connected to the central capacitor (C2), whose other terminal is connected to a reference voltage.~~

5. (Currently amended) ~~Circuit~~ The circuit arrangement according to ~~one of the preceding~~ claims, claim 1, characterized in that a switch (~~S1~~) is connected in parallel to the central capacitor (~~C2~~).

6. (Currently amended) ~~Circuit~~ The circuit arrangement according to ~~one of the preceding~~ claims, claim 1, characterized in that it has several capacitive sensor elements, wherein (~~C3~~) with each of which is associated a first and a second connecting means (~~D2, T1~~), and only has one single central capacitor (~~C2~~), which is connected in ~~the a~~ conducting direction across in each case one decoupling diode (~~D4~~) to the particular second connecting means (~~T1~~), ~~the said~~ anode of the said decoupling diode (~~D4~~) being connected by a selection diode (~~D3~~) in ~~the said~~ conducting direction with a selection signal (~~SL1, SL2, SL3~~).

7. (Currently amended) ~~Circuit~~ The circuit arrangement according to ~~one of the preceding~~ claims, claim 1, characterized in that ~~the said~~ capacitive sensor element (~~C3~~) is constructed for application to an underside of a surface or a cover having dielectric characteristics ~~and preferably has a smooth, planar surface for engagement purposes.~~

8. (Currently amended) ~~Circuit~~ The circuit arrangement according to ~~one of the preceding~~ claims, claim 1, characterized in that ~~the said~~ capacitive sensor element (~~C3~~) is a voluminous, elastic, ~~preferably~~ elongated body of electrically conductive material.

9. (New) The circuit arrangement according to claim 1, characterized in that said second connecting means is a bipolar transistor.

10. (New) The circuit arrangement according to claim 9, characterized in that a base of said transistor is connected to said charging voltage node, that an emitter of said transistor is connected to a filter resistor, which is coupled to said capacitive sensor element and that a collector of said transistor is connected to said central capacitor whose other terminal is connected to a reference voltage.

11. (New) The circuit arrangement according to claim 7, characterized in that said capacitive sensor element has a smooth, planar surface for engagement purposes.